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✓ Mons. U. J. Le Verrier was ballotted for and duly elected an Associate of the Society.

Commander Charles Shadwell, R.N., Barnes, Surrey ; Rev. H. A. Goodwin, M.A., Fellow of Corpus Christi College, Cambridge, F.C.P.S. ; William Roberts, Esq., of No. 4 Melbourne Cottages, Townsend Road, Regent's Park, were ballotted for and duly elected Fellows of the Society.

*OBSERVATIONS of LE VERRIER's Planet.**In the Meridian.*

MARKREE OBSERVATORY. (E. J. Cooper, Esq., & Mr. A. Graham.)

Greenwich M.T.	App. R.A.	App. Dec.	Instrumental Correction, from	Observer.
1846. Oct. 3·401067	21 52 32·54	-13° 28' 10·4"	7,	E. J. C.
6·392739	20·74	29 13·9	7,	—
12·376121	52 0·27	30 53·7	7,	—
14·370345	51 54·05	31 24·6	1, 2, 3, 4, 5, 6,	—
16·365063	48·28	31 53·5	1, 3, 4, 6, 7, 8, 9, 10	—
17·362062	45·73	32 2·0	1, 2, 4, 6, 7, 8, 9, 10	—
19·356785	40·94	32 36·6	4, 5, 6, 7, 8,	—
24·343014	30·60	33 19·8	1, 2, 3, 5, 6, 7, 8, 9,	—
26·337522	21 51 27·85	-13 33 38·9	5, 6, 7, 8, 9,	—

- Oct. 6. Bisection satisfactory though blowing hard.
 12. Hurried observation, an opening only momentary in the clouds, which were general at the time ; cannot depend on it.
 14. Got only 3 first wires of planet ; faint at these.
 16. Good observation.
 17. Got only 3 first wires of planet.
 19. With illuminated field. Good observation.
 24. Blowing hard. Clock scarcely audible.
 26. Satisfactory observation, though night unpromising.

Greenwich M.T.	App. R.A.	App. Dec.	Instrumental Correction, from	Observer.
1846. Nov. 2. 318324	21 51 20.50	-13° 34' 9.6"	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	E.J.C.
4. 312855	19.76	34 15.0	ditto	—
9. 299204	19.87	34 12.3	ditto	—
10. 295787	20.43	34 6.3	ditto	—
11. 293756	21.04	34 7.0	ditto	—
17. 277445	27.17	33 29.8	5,	—
24. 258482	40.19	32 17.8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	—
28. 247681	51 50.73	31 20.7	6, 8, 9, 10	—
Dec. 3. 234210	52 6.37	29 57.7	1, 2, 3, 4, 5, 6, 7, 10	—
4. 231668	9.74	29 37.1	4, 5, 6, 7, 9, 10	A.G.
14. 204703	52.14	25 54.6	1, 4, 5, 6, 7, 8,	—
15. 202030	52 56.98	25 26.5	1, 4, 5, μ	—
17. 196684	21 53 7.02	-13 24 36.0	4, 5, μ, 6, 7, 8, 9, 10	—

Nov. 2. Stars blotty and unsteady ; planet better shewn.

4. Good observation.

9. Planet faint.

11. Fixed stars much more unsteady than planet.

17. Taken through auroral clouds ; the declination, $-13^{\circ} 33' 34.7''$, deduced from the instrumental corrections of November 11th and 18th is safer.

24. Satisfactory observation of planet. There were only 3 wires of 50 *Aquarii* obtained, in consequence of clouds, but these were well taken.

28. The stars 1, 2, 3, 4, 5, were observed by A. G. ; the comparison of the result from them with that from 6, 8, 9, 10, observed by E. J. C., tends to confirm the notion of a large personal equation. They give E. J. C.'s clock correction = A. G.'s $-0^{\circ} 57$.

Dec. 4. Got only 4 wires of planet, observation uncertain. The planet was faintly seen through clouds. The stars were observed through opening, though all were complete observations. Sky was totally clouded before 42 *Capricorni*, and after the last star.

14. Planet and wires well seen by daylight.

15. ditto ditto

17. Very faint, daylight too strong.

The places of the stars of comparison from which the instrumental corrections are derived for the preceding observations, are taken from the B. A. Catalogue. The following table contains the names of the stars, with the corrections to be applied to the places of the catalogue, that is, supposing the *mean* of the whole to be correct.

	Star.	R.A.	No. of Obs.	Dec.	No. of Obs.
1	<i>i</i> Capricorni ...	-0°034	15	-1°65	14
2	7451	-0°355	12	-0°43	12
3	7487	-0°021	12	-0°21	12
4	42 Capricorni	+0°161	17	-0°41	17
5	δ —	+0°074	17	-0°69	17
μ	μ —	-0°026	2	-1°11	2
6	<i>i</i> Aquarii	-0°007	17	+1°12	17
7	39 —	+0°030	15	+5°57	15
8	45 —	-0°072	14	-2°75	14
9	50 —	+0°102	13	+0°87	13
10	σ —	+0°035	13	-1°66	13

"These corrections were obtained by subtracting each result from the mean of all the results for each night, and then by combining the remainders, according to the weights of the determinations. They are to be applied, with the proper sign, to the right ascension and declination of the planet, the south declination being, as usual, regarded as negative. On the night of Nov. 9th, a mistake was made in reading the level attached to the declination circle, in the instance of *i Capricorni*. In reducing the observation, what was very probably the reading was used instead of that given in the observing book ; an anomaly still, however, appearing in the result, it has been thought better wholly to reject the declination observation of *i Capricorni* for that night. The correction of the declination for November 9th will consequently be +0°9 instead of what would be deduced from the table given above ; or, Nov. 9th, declination = -13° 34' 11".4. Since the corrections given in the table are *mutual*, any more accurate determination which may hereafter be obtained of *one* star will be applicable to *all*, and also the planet."—ANDREW GRAHAM.

Corrections to be applied to the foregoing right ascensions and declinations of the planet, the south declination being considered negative :—

	R.A.	Dec.		R.A.	Dec.
Oct. 3	+0°03	+5°6	Nov. 9	+0°01	+0°9
6	+0°03	+5°6	10	+0°01	0°0
12	+0°03	+5°6	11	+0°01	0°0
14	-0°03	-0°4	17	+0°07	-0°7
16	+0°03	+0°1	24	+0°01	0°0
17	-0°02	+0°1	28	+0°01	-0°6
19	+0°04	+0°6	Dec. 3	+0°01	+0°2
24	-0°01	+0°2	4	+0°09	+0°8
26	+0°03	+0°8	14	+0°03	+0°2
Nov. 2	+0°01	0°0	15	+0°04	-1°0
4	+0°01	0°0	17	+0°06	+0°1

✓ HARTWELL.

5-foot Transit. (Dr. Lee and Mr. Dell.)

	Date.	App. R.A.
		h m s
1846	Oct. 16	21 51 48.60
	18	51 44.80
	19	51 41.74
	20	51 38.65
	23	51 32.91
	25	51 29.41
	Nov. 1	51 21.49
	3	51 20.36
	4	21 51 19.89

✓ LIVERPOOL.

5-foot Transit. (Mr. Hartnup.)

		R.A.	No. Wires.
		h m s	
1846	Dec. 11	21 52 37.82	(3)
	13	52 46.97	(7)
	14	52 51.99	(5)
	15	52 56.72	(6)
	16	53 01.64	(7)
	17	21 53 6.82	(7)

*Approximate Elements of the Planet of LE VERRIER,
by Mr. HIND.*

Heliocentric Longitude, 1847°	.....	327° 33' 3"	Mean Equinox,
Longitude of Ascending Node.....	.....	129° 53' 9"	1847.
Inclination of the Orbit .....	.....	1° 45' 9"	
Radius of the Orbit .....	.....	30° 179'	

These elements were deduced at Mr. Bishop's request : they will serve to compute an ephemeris for collecting and comparing the observations of the planet. They are founded on the early Cambridge observations, compared with others extending to December 3.